Claims

- 1. F_V antibody construct having binding sites for an CD16 receptor and a CD30 surface protein.
- 2. F_V antibody construct according to claim 1, wherein the CD16 receptor is derived from NK cells.
- 3. F_V antibody construct according to claim 1 or 2, wherein the CD30 surface protein is derived from Hodgkin's disease or Reed-Sternberg cells.
- 4. F_v antibody construct according to any of claims 1 to 3, wherein one binding site is present each.
- 5. F_{V} antibody construct according to claim 4, encoded by the expression vector pKID16-30 (DSM 12960).
- 6. F_{v} antibody construct according to any of claims 1 to 3, wherein two binding sites are present each.
- 7. Expression vector, coding for the F_{ν} antibody construct according to any of claims 1 to 6.
- 8. Expression vector according to claim 7, namely pKID16-30 (DSM 12960).
- 9. Transformant, containing the expression vector according to claim 7 or 8.
- 10. A method of producing the F_V antibody construct according to any of claims 1 to 6, comprising culturing the transformant according to claim 9 under suitable conditions.

- 11. Kit comprising:
 - (a) an F_V antibody construct according to the invention $\label{eq:second} \mbox{and/or}$
 - (b) an expression vector according to the invention, and
 - (c) common auxiliary substances, such as buffers, solvents, carriers, controls and markers,

wherein one or more representatives of the individual components may be present.

- 12. Use of the F_V antibody construct according to any of claims 1 to 6 for lysis of cells expressing CD30 surface proteins.
- 13. Use according to claim 12, wherein the cells are tumor cells.
- 14. Use according to claim 13, wherein the tumor cells are Hodgkin's disease or Reed-Sternberg cells.